

Addendum to report "R/V Brooks McCall Cruise Report, Deepwater Horizon, May 7-12, 2010"

M. Hydrocarbon Analysis of Samples

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Total Petroleum Hydrocarbons (TPH) analysis was completed on 88 samples submitted to the lab at LSU. Oil concentration in water was detected for 20 of the 88 samples. Two other samples of oil on sorbent pad confirmed the presence of oil and measured the nominal oil weight. See Table M1-A "Deepwater Dispersant Test - Priority Samples" and Table M1-B "Deepwater Dispersant Test - Water Samples (TPH)".

TPH analysis confirms oil concentration in water. Of the 20 samples with detectable TPH levels:

- 14 had a concentration less than 5 ppm
- Two samples had a concentration less than 100 ppm
- The remaining 4 samples ranged from 2541 - 63,239 ppm

Of the four samples taken with highest TPH concentration, the samples were from locations 0.5 km - 2 km from the wellhead and all taken from the "A" depth interval (surface).

A GC/MS analysis was conducted on twelve samples that had sufficient volume after solvent extraction for analysis. Samples were either presented as oil in water or oil from sorbent pad. All samples were from the "A" depth interval (surface) with the exception of one, B09C-WA01 which was taken at a depth of 275 m below surface. 7 of the 12 samples were presented as oil on sorbent pads, not oil in water. Total Alkane content for the "A" depth samples ranges from 9770 - 26549 ng/mg or ng/mL. Alkane content for the "C" depth sample was 22 ng/mL. Total Aromatic content for the "A" depth samples ranges from 1295-14,446 ng/mg or ng/mL. Aromatic content for the "C" depth sample was 0.91 ng/mg. Samples with GC/MS spectral information are 0.5-1.5 km from the wellhead. Alkane content is concentrated in the C-10 to C-20 range. See Table M1-C "20101332 - Deep H2O Disp Study".